

July 31, 2013

Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Department of Commerce**  
Docket No. E001/M-13-249

Dear Dr. Haar:

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department or DOC) in the following matter:

Interstate Power and Light Company's 2012 Annual Safety, Reliability, and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Indices for 2013.

The Petition was filed on April 1, 2013 by:

Kent M. Ragsdale  
Managing Attorney – Regulatory  
Interstate Power and Light Company  
200 First Street SE  
P.O. Box 351  
Cedar Rapids, IA 52406-0351

The Department recommends that the Commission **accept Interstate Power and Light Company's filing and set appropriate reliability goals for 2013, pending the submission of additional information.**

Sincerely,

/s/ ANGELA BYRNE  
Financial Analyst  
651-539-1820

AB/jl  
Attachment

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS OF THE  
MINNESOTA DEPARTMENT OF COMMERCE  
DIVISION OF ENERGY RESOURCES

DOCKET NO. E001/M-13-249

**I. BACKGROUND**

Minnesota Rules, Chapter 7826 (effective January 28, 2003) were developed as a means for the Minnesota Public Utilities Commission (Commission) to establish safety, reliability and service quality standards for utilities “engaged in the retail distribution of electric service to the public” and to monitor their performance as measured against those standards. There are three main annual reporting requirements set forth in the rule. These are:

- 1) the annual safety report (Minnesota Rules, part 7826.0400),
- 2) the annual reliability report (Minnesota Rules, part 7826.0500, subp. 1 and 7826.0600, subp. 1), and
- 3) the annual service quality report (Minnesota Rules, part 7826.1300).

In addition to the rule requirements, the Commission’s December 20, 2012 Order in Docket No. E001/M-12-320 directed Interstate Power and Light Company (IPL or the Company) to include in its next annual safety, reliability, and service quality reports:

- a. a description of the policies, procedures and actions that it has implemented, and plans to implement, to ensure reliability, including information demonstrating pro-active management of the system as a whole, increased reliability, and active contingency planning.
- b. a status update on the recloser and fuse coordination at affected substations to ensure proper fuse sizes have been installed to coordinate with substation protection equipment operation.

- c. a report on the five-year construction plan based on the most recent reliability indices and circuit performance information. This report should evaluate where construction dollars will have the greatest impact on reliability and include the cost and benefit to customers.
- d. a report on the Company's review of the Life Extension guidelines with field engineering and construction crews. The review should ensure wildlife protection is installed on all projects and lightning protection is installed as designed by the engineer.
- e. a summary table that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability.
- f. A report on the major causes of outages for major event days.

On April 1, 2013, IPL filed a petition (2013 Annual Report) to comply with Minnesota Rules Chapter 7826 and the Commission's December 20, 2012 Order.

The Department notes that the Commission's June 5, 2009 Order in Docket No. E999/CI-08-948 (08-948 docket) contains the following order point:

Beginning on April 1, 2010 and annually thereafter, utilities shall file reports on past, current, and planned smart grid projects, with a description of those projects, including: total costs, cost effectiveness, improved reliability, security, system performance, and societal benefit, with their electric service quality reports.

On May 4, 2010, the Commission issued a "Notice Seeking Comments" in the 08-948 docket requesting comments on issues relating to that docket, including the annual reports filed in compliance with its June 5, 2009 Order. Therefore, the Department concluded that the 08-948 docket was the appropriate forum for comments on the utilities' annual smart grid project reports and did not address those reports in our comments relating to the utilities' 2010 Safety, Reliability, and Service Quality Reports. On March 4, 2011, the Commission issued its "Notice Clarifying Information Sought in Smart Grid Reports" in the 08-948 docket. The Commission directed rate-regulated utilities to file their smart grid reports in both their annual Safety, Reliability, and Service Quality Report and in the 08-948 docket. No request for comments has been issued to date on the 2013 smart grid reports; therefore, the Department will include a summary IPL's smart grid report as filed in its 2013 Annual Report.

## **II. SUMMARY OF REPORT AND DEPARTMENT ANALYSIS**

The Department reviewed IPL's 2013 Annual Report to assess compliance with Minnesota Rules, Chapter 7826 and the Commission's December 20, 2012 Order. The Department used information from past annual reports to facilitate the identification of issues and trends regarding IPL's performance.

### **A. ANNUAL SAFETY REPORT**

The Annual Safety Report consists of two parts:

- A. a summary of all reports filed with the United States Occupational Safety and Health Administration (OSHA) and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry (OSHD) during the calendar year; and
- B. a description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and all remedial action taken as a result of any injuries or property damage described.

IPL reported that it is not required to submit reports to OSHA, though it does comply with OSHA record-keeping requirements. IPL submitted completed copies of OSHA's Form 300A, "Summary of Work-Related Injuries and Illnesses" covering incidents that occurred during 2012 for each of the Company's Minnesota facilities.

IPL reported that there were no incidents of injuries requiring medical attention as a result of electrical system failures in 2012. The following table summarizes IPL's most recent and past Annual Reports regarding property damage claims.

**Table 1: Property Damage Reimbursement**

	<b>Claims</b>	<b>Cause</b>	<b>Total Amount Paid</b>
2003	1	Error when connecting transformer	\$313.00
2004	5	Crew errors	\$36,069.48
2005	3	Crew errors, customer overlooked after weather-related outage	\$3,741.20
2006	3	Equipment failure, crop damage when repairing line, low clearance from road rebuild	\$2,076.10
2007	6	Crop damage when replacing pole, equipment failure	\$4,435.00
2008	3	Crew error, tree trimming accident, incorrectly installed meter	\$3,938.00
2009	6	Circuit breakers blew when power came back on, transformer/neutral power surge, transformer oil leak, fire, underground secondary shorted out	\$7,957.60
2010	3	Rotten pole & line fell on car, failed transformer, storm damaged meter socket	\$4,689.19
2011	3	Killed tree, customer's service disconnected in error, service neutral was pulled apart at old splice	\$1,773.41
2012	4	Voltage damage, damage from pole anchor, contractor strike from incorrect locate by IPL, trees removed without permission	\$21,705.26

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.0400.

**B. ANNUAL RELIABILITY REPORT**

Minnesota Rules, part 7826.0500 requires each utility to file an annual report that includes the following information:

1. reliability performance,
2. storm-normalization method,
3. action plan for remedying any failure to comply with reliability goals,
4. bulk power supply interruptions,
5. major service interruptions,
6. circuit interruption data (identify worst-performing circuit),
7. known instances in which nominal voltages did not meet American National Standards Institute (ANSI) standards,
8. work center staffing levels, and
9. any other relevant information.

1. *Reliability Performance*

IPL's Minnesota service territory consists of two work centers. In Docket No. E001/M-12-320, the Commission set IPL's reliability goals as follows:<sup>1</sup>

Winnebago work center:

SAIDI (average number of minutes a customer is without power) = 59.81  
SAIFI (average number of times a customer is without power) = 0.90  
CAIDI (average minutes per outage for customers that lose power) = 66.17

Albert Lea work center:

SAIDI = 80.30  
SAIFI = 1.02  
CAIDI = 78.44

The Department notes that the goals remained unchanged from 2008 to 2012. IPL's reliability report shows that the Company met its SAIDI and CAIDI goals for Albert Lea in 2012, but did not meet its Winnebago goals or SAIFI for Albert Lea. Table 2 compares IPL's 2012 reliability goals and performance.

**Table 2: IPL's 2012 Reliability Goals and Performance**

Work Center	SAIDI		SAIFI		CAIDI	
	Goal	Actual	Goal	Actual	Goal	Actual
Winnebago	59.81	99.31	0.90	0.95	66.17	105.03
Albert Lea	80.30	75.41	1.02	1.14	78.44	65.98

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1A, B, and C. See Section II.B.3 below for a discussion of IPL's 2012 reliability performance.

2. *Storm-Normalization Method*

Since 2004, IPL has used the method set forth in the IEEE 1366 standard (IEEE 2.5 beta method). IPL reported that, in 2012, this method resulted in no event exclusions from reliability index calculations for the Winnebago work center and two events were excluded in the Albert Lea work center.

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<sup>1</sup> For ease of reference, the Department attaches to these comments Minnesota Rules, Chapter 7826. Minnesota Rules, part 7826.0200 defines SAIDI, SAIFI and CAIDI. The Department notes that SAIDI = SAIFI \* CAIDI.

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1D.

### *3. Action Plan to Improve Reliability*

Regarding its Albert Lea work center, IPL stated that it met its SAIDI and CAIDI but did not meet the SAIFI goal in 2012. IPL attributes the SAIFI result of 1.14 versus the goal of 1.02 to a sharp increase in short duration planned outages during life extension work. IPL also stated that in most cases these outages are of short duration and affect few customers, so they do not make a significant contribution to the other indices. Additionally, IPL suggested that more consistent reporting of these scheduled outages by Company crews to the dispatch center also contributed slightly to the increase in the total number of these events over previous years.

In its Winnebago work center, IPL did not meet any of its 2012 goals, missing SAIDI and CAIDI goals by a significant margin. IPL stated that the largest outage at its Magnolia station was due to a broken phase conductor near Wilmont. The Company explained that the conductors at this location are difficult to reach due to the terrain in the area, so it is reviewing whether to convert the line to underground. At the Heron substation, two large outages on the distribution system accounted for 96% of all outage minutes at that station. No specific cause was found for the first outage, and the second outage was a result of a broken jumper on a recloser for the only circuit out of this substation. Since there is only one circuit out of the substation, all customers served from the substation experienced the outage until the jumper could be repaired.

IPL's annual explanations for its continuing struggle to attain its reliability goals generally focus on what it has, or will do, to fix the specific incident or incidents it considered the main reason for its failure to meet the goals, and/or describe non-preventable events as contributing factors. IPL's performance has generally remained steady or worsened since 2003, indicating that that the action steps described may have had limited, or insufficient, impact on overall reliability performance. Table 3 below shows how many of its six annual goals<sup>2</sup> IPL has met since 2003.

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<sup>2</sup> The six goals being SAIDI, SAIFI, and CAIDI for both the Winnebago and the Albert Lea work centers.

**Table 3 – Reliability Goals Met**

	Winnebago			Albert Lea		
	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
2003	Yes	No	Yes	Yes	Yes	Yes
2004	Yes	Yes	No	No	No	No
2005	No	No	No	No	No	No
2006	Yes	Yes	Yes	No	Yes	No
2007	No	No	No	Yes	No	Yes
2008	Yes	Yes	No	No	No	No
2009	Yes	Yes	No	Yes	No	Yes
2010	No	No	No	No	No	No
2011	No	Yes	No	No	Yes	No
2012	No	No	No	Yes	No	Yes

As shown above, IPL has only met 23 out of 60 goals, resulting in a 38 percent success rate. At its best, IPL met five of its six goals once in 2003, however it did not achieve any of its goals in either 2005 or 2010. Further, IPL has met its CAIDI goal in the Winnebago work center only twice in the past 10 years.

At the Commission’s November 19, 2012 Agenda meeting (Agenda meeting) for the 2012 Annual Report,<sup>3</sup> the Commission expressed concern over IPL’s reliability performance during the previous nine years. The Commission asked if IPL’s struggle to meet its goals was a result of bad metrics or indicative of trouble with its system. The Commission also asked why the reliability statistics did not improve in the Winnebago work center after additional wildlife protection was installed at the Magnolia substation in response to an extensive outage on June 7, 2011 due to a raccoon. IPL was unable to answer the question at the Agenda meeting and offered to follow up at a later time.

On February 12, 2013, the Company filed a letter in response to the Commission’s concerns regarding the June 7, 2011 outage at the Magnolia substation in its Winnebago work center. IPL stated,

The reliability statistics provided in IPL’s Reliability Report encompasses all events in 2011 including the June 7, 2011, outage at the Magnolia substation. Therefore, reliability in IPL’s Winnebago, Minnesota zone is not reported in time periods specifically before and after the improvement was made. In the second half of 2011 the Magnolia substation did not experience any wildlife related outages which will make a positive impact on the reliability record of the zone.

<sup>3</sup> Docket No. E001/M-12-320.



IPL also stated that the Winnebago work center is very rural in nature, with approximately ten percent of work center customers served by the Magnolia substation. Therefore, IPL pointed out, a single outage incident can have a significant effect on its SAIDI, SAIFI, and CAIDI calculations for the Winnebago work center.

The Department appreciates the information that IPL has provided on this matter, however IPL did not address the Commission's concerns regarding IPL's overall reliability in its February 12, 2012 letter. The Department continues to be frustrated by IPL's apparent lack of improvement in its annual reliability performance. IPL has provided an action plan in some form or another since at least the 2008 report (reporting data for the 2007 calendar year). Below is a compilation of excerpts from IPL's reply comments regarding reliability performance since 2008.

In its reply comments to the 2008 report,<sup>4</sup> IPL stated,

As a result of IPL Zone Reliability Team meetings in both the Winnebago and Albert Lea zones, IPL has identified and taken action on eight reliability-improving projects, including adding wildlife protection, changing fuse/recloser coordination and completing additional out-of-cycle tree trimming.

In its reply comments to the 2009 report,<sup>5</sup> IPL stated,

In addition to ZRT activity, IPL is using an objective prioritization process to prioritize rebuild and improvement projects across the entire service territory. The primary means of project prioritization is accomplished through the use of the GAP tool. The basic concept of the GAP tool is to recognize a performance gap between actual performance and targeted performance. Through a series of formulas the performance gap is converted into a numeric score. The greater the performance gap, the greater the numeric score, thus the higher the priority within the budget process.

In addition to the above, IPL is also employing Preventive Maintenance (PDM) Technicians that are utilizing preventative maintenance techniques such as dissolved gas analysis (DGA), infrared scan, and oil sampling to detect early warning signs of potential substation problems. Transformers with readings outside of a normal range are placed on the Transformer Watch List for additional monitoring and potential corrective action.

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<sup>4</sup> Page 2, Reply Comments filed June 11, 2008 in Docket No. E001/M-08-385.

<sup>5</sup> Page 4, Reply Comments filed June 26, 2009 in Docket No. E001/M-09-344.

IPL is inspecting distribution circuits to verify proper condition of equipment and identifying conditions which may cause equipment damage, service interruptions, or hazardous conditions. Abnormalities found are being recorded on inspection forms for maintenance scheduling. Hazardous conditions are being reported to zone managers for prompt correction.

In its reply comments to the 2010 report,<sup>6</sup> IPL stated,

In response to the Winnebago work center CAIDI performance in 2009, IPL has completed an extensive review of the 2009 outage data for the Winnebago work center. Because of the excellent performance on the SAIDI and SAIFI indices for the Winnebago work center and, as the OES agreed, the highly variable nature of the indices due to the small Winnebago work center customer base, IPL contends that the 2009 CAIDI result has significantly less indicative value as an indice.

In analyzing the 2009 outage data for the Winnebago work center, 42 of the total 142 outage events (30%) were over IPL's internal target of 120 minutes. This is above the 7 year average of 25.3% and as such does warrant further analysis. Of those 42 events, 19 were equipment failure related; 3 of these were failed cutouts in fair weather; and 5 were failed transformers due to numerous factors. IPL has determined that this amount of equipment failure is typical of past performance for the area and does not warrant an improvement action plan. IPL continues to monitor equipment failure outages through its Zone Reliability Teams and is looking for and will respond to any upward trending in this area. In each of these cases the restoration times are significantly longer due to the complexity of the repair work necessary to restore service. The lack of a significant amount of weather related and animal related outages; [sic] which in many cases have shorter duration restoration times, contributed to the larger than anticipated CAIDI performance for 2009 as well.

Combining the three factors above made it unavoidable for IPL to make its 2009 CAIDI performance target. IPL will, as indicated above, continue to monitor CAIDI performance and implement improvement plans as necessary to meet or exceed the performance targets.

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<sup>6</sup> Pages 2 - 3, Reply Comments filed July 22, 2010 in Docket No. E001/M-10-291.

In its reply comments to the 2011 report,<sup>7</sup> IPL stated,

In its Comments the Department expresses concerns with what it believes appears [sic] to be a continuing decline in IPL's reliability performance. However, the Department acknowledges that generally more severe weather occurred in 2010 than in 2009, which may mask inherent improvements to IPL's outage management efforts. The Department urges IPL to continue to increase its efforts to strengthen integrity of its distribution system.

IPL takes very seriously its responsibility to provide safe and reliable electric service. To that extent, IPL has invested over nine million dollars into the electric distribution infrastructure that serves its Minnesota customers over the last five years. Many of those expenditures were used on reliability enhancement projects that were a direct result of IPL's local Zone Reliability Teams' efforts to identify and address problem circuits. As the Department observed, 2010 was an abnormally high year for storm outage activity across the state. In 2009, when a more moderate weather pattern occurred, IPL's reliability metrics improved over 2008. So far, storm activity across IPL's Minnesota territory 2011 YTD, has been noticeably less than in 2010.

IPL also implemented its life extension project process in late 2009 across its Minnesota service territory. Several Minnesota projects were completed in 2010, with an additional nine life extension projects, located in Minnesota, slated for completion in 2011. In future filings, the positive impact of these projects will be discussed. IPL believes that it was too early to see the positive results of its life extension project process in the reliability indices for the 2010 filing.

In its reply comments to the 2012 report,<sup>8</sup> IPL stated,

IPL is working to minimize both the number of outages and duration of outages customers experience in several target areas IPL believes will have a positive impact on reliability as described below.

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<sup>7</sup> Pages 2 – 3, Reply Comments filed August 31, 2011 in Docket No. E001/M-11-277.

<sup>8</sup> Pages 2 – 3, Reply Comments filed July 13, 2012 in Docket No. E001/M-12-320.

IPL is verifying reclosure and fuse coordination at all substations to ensure proper fuse sizes are being installed to coordinate with substation protection equipment operation. Proper coordination of reclosers and fuses will help minimize the area affected by outages when a recloser operates and reduce the number of customers affected. IPL updates this information every 10 years or as system changes occur. Updated information is then provided to crews so the proper sized fuses can be installed.

IPL Distribution Engineering group is also updating the five year construction plan based on the most recent reliability indices and circuit performance information. Regular evaluation of system performance and outage causes is important in determining where construction dollars will have the greatest impact on reliability and benefit to customers.

Another step IPL is taken [sic] to improve system reliability is ensuring the proper equipment is installed on Life Extension projects. IPL is reviewing the Life Extension guidelines with Field Engineering and construction crews to ensure wildlife protection is installed on all projects and lightning protection is installed as designed by the engineer. A post construction audit process is performed at the conclusion of all projects over \$100k verifying that both wildlife and lightning protection was installed as designed.

IPL recognizes system improvements can be made to minimize outages related to equipment failure, wildlife and lightning and believes these steps will have a positive effect on the service provided to customers.

As shown by the above excerpts, the Company is typically responsive to individual causes of reliability issues in its annual reports. The Department appreciates all of the discussion over the years but notes again that IPL's efforts appear to be insufficient to improve IPL's overall reliability performance.

In light of current year performance, and the lack of improvement over the years, the Department would typically request that the Company submit in its Reply Comments an action plan to improve its reliability; however this process does not appear to be working. Additionally, the Commission ordered IPL to provide a five-year construction plan and a report on the review of

the Life Extension guidelines as part of this report,<sup>9</sup> which speaks directly to this issue. The Department discusses these two compliance items in Section II.E. below.

The reporting requirements within Minnesota Rules Chapter 7826 and the annual performance goals set by the Commission seem to guide the other electric utilities as intended. The three largest electric investor-owned utilities have addressed or are addressing reliability issues with relative success, while IPL continues to struggle to achieve its goals, even after the goals have been held constant since 2009.<sup>10</sup> IPL's performance does not appear to be influenced by this review and goal-setting process. As discussed in Section II.C below, IPL's reliability performance has been generally decreasing, in spite of Commission-approved goals intended to promote stability or improvement. The Commission may wish to consider additional alternatives such as to require that IPL provide budgeted and actual amounts spent on reliability, comparing those amounts to what is being collected in rates, and/or that IPL provide the criteria used in selecting projects to implement.<sup>11</sup>

#### *4. Bulk Power Supply Interruptions*

IPL submitted a list summarizing the eight bulk power supply interruptions that occurred in 2012. This list includes information regarding the cause, duration, and remediation of each interruption. The most common cause listed for the bulk power supply interruptions in 2012 is "Foreign Utility\_AE."

The Department acknowledges IPL's fulfillment of the requirements of Minnesota rules, part 7826.0500, subp. 1F.

#### *5. Major Service Interruptions*

IPL included a summary table of the Outage Reports it sent to the Commission's Consumer Affairs Office (CAO) in 2012, as required by Minnesota Rules, part 7826.0700. However, Minnesota Rules, part 7826.0500, subp. 1G requires that utilities file copies (as opposed to summaries) of these reports in their annual service quality filings. The Department obtained IPL's submitted reports for 2012 from the CAO to verify that the Company had indeed submitted the proper reports.

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<sup>9</sup> *Order Approving Reports, Setting 2012 Reliability Standards, and Setting Filing Requirements*, issued December 20, 2012 in Docket No. E001/M-12-320.

<sup>10</sup> These utilities are Minnesota Power, OtterTail Electric, and Xcel Energy. Minnesota Power has met 80 percent of its goals since 2003, and its performance has generally been improving since 2007. OtterTail Electric has only met between 22 and 28 percent of its goals in 2010 and 2011 but had previously achieved between 67 percent and 83 percent of its goals. Xcel Energy has met 64 percent of its goals since 2005 (2005 was the first full year of reliability data on the OMS system). Comparatively, IPL has achieved 38 percent of its goals since 2003.

<sup>11</sup> The Department notes that IPL has provided information on how projects are prioritized, but the criteria used in selecting which projects are implemented, and how many, remains unclear.

The Department acknowledges that IPL's summary table included the same information as included in the reports to the CAO. However, all other electric utilities submit copies of the emails sent to the CAO to confirm that the utility is properly reporting outages. The Department requests that IPL provide the information required by Minnesota Rules, part 7826.0500, subp. 1G in future annual reports.

#### 6. *Worst Performing Circuit*

Minnesota Rules, part 7826.0500, subp. 1H requires information on the utility's worst performing circuit, including the circuit's SAIDI, SAIFI, and CAIDI. IPL indicated that it has a ranking process in order to better identify its worst performing circuits that otherwise may not have been identified if using only the SAIDI and SAIFI of a circuit. IPL stated that certain outages beyond the control of IPL or which may not reflect the physical conditions of the equipment have been excluded from the analysis. These types of events include: planned interruptions; interruptions caused by the failure of another utility's transmission or distribution system which feeds the IPL distribution system; interruptions caused by the public, such as vehicle accidents, customers dropping tree limbs in lines while trimming, etc.; interruptions caused by personnel errors such as switching errors or accidental contact during live utility work; and interruptions due to flooding.

IPL identified the worst performing circuit in each work center, the main causes of the outages, and remedial measures taken. The worst performing circuit in the Albert Lea work center, according to IPL, was caused by severe weather which resulted in numerous downed wires. IPL stated that it plans to convert approximately 2,800 feet of overhead line to underground, which should reduce the possibility of further storm and tree related damage. The Company noted that the worst performing circuit in the Winnebago work center was affected by two outages caused by tree limb contact during high winds. Affected distribution feeders did not have backup switching ability, so IPL has developed a plan to reconfigure the system to prevent similar events in the future.

In its 2013 Annual Report, IPL did not provide SAIDI, SAIFI, and CAIDI for either of these circuits as required by Minnesota Rules, part 7826.0500, subp. 1H. The Department appreciates the information provided by IPL on these circuits but requests that IPL submit this performance information in order to fulfill the rule requirement.

#### 7. *Compliance with ANSI Voltage Standards*

IPL reported one instance on April 18, 2012 where nominal voltages exceeded ANSI standards. The Company stated that upon receiving several customer calls, a crew was dispatched to repair a substation malfunction causing elevated voltage levels.

The Department acknowledges IPL's fulfillment of Minnesota Rules, part 7826.0500, subp. 1I.

8. *Work Center Staffing Levels*

The following table summarizes IPL's work center staffing levels.

**Table 4: Work Center Staffing Level (in Full-Time Equivalents)**

	<b>Albert Lea</b>	<b>Winnebago</b>	<b>Total</b>
2003	29.6	20.0	49.6
2004	29.6	18.0	47.6
2005	20.6	18.0	38.6
2006	20.6	17.0	37.6
2007	20.6	17.0	37.6
2008	25.0	18.0	43.0
2009	25.0	18.0	43.0
2010	25.0	17.0	42.0
2011	23.0	17.0	40.0
2012	23.0	17.0	40.0

The Department acknowledges IPL's fulfillment of Minnesota Rules, part 7826.0500, subp. 1J.

C. *PROPOSED RELIABILITY STANDARDS FOR 2013*

1. *Proposed Reliability Goals*

At its November 19, 2012 Agenda meeting,<sup>12</sup> the Commission requested a dialog between IPL, the Department and Commission Staff to address whether the Company's goals should be re-evaluated in light of IPL's difficulties in meeting those goals. In January and February, the Department communicated with IPL via emails and phone conversations regarding this issue. IPL had no suggestions other than what the Company has proposed previously in its 2009 through 2013 Annual Reports (see description below). The Department notes that the Commission has consistently rejected that approach. The Department fully agrees with the Commission's past decisions and continues to recommend that IPL be held to goals set in a manner consistent with how the goals for other utilities are set (average of past performance except in cases where performance appears to be declining, in which case the goals are held steady).

In its 2013 Annual Report, IPL proposed the following reliability goals for 2013:

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<sup>12</sup> At this meeting, the Commission addressed IPL's 2012 Annual Report filed in Docket No. E001/M-12-320.

**Table 5: IPL’s Reliability Indices – Proposed 2013 Goals**

Work Center	SAIDI		SAIFI		CAIDI	
	Proposed	2012 Goal	Proposed	2012 Goal	Proposed	2012 Goal
Winnebago	75.30	59.81	0.71	0.90	99.30	66.17
Albert Lea	81.80	80.30	1.14	1.02	75.20	78.44

IPL stated that its proposed goals were developed based on IPL’s previous five years of performance data and calculated by determining the mean, the median, and the mean with the highest and lowest performance indices excluded. The Company stated that it selected as its proposed goals the lowest (hardest to achieve) of the results of those calculations for each index.

The Department notes that this is the same method IPL used in its 2009, 2010, 2011 and 2012 Annual Reports. In all cases, the Commission did not approve this method and instead, set IPL’s 2009, 2010, 2011 and 2012 goals at the same level as its 2008 goals, as recommended by the Department.<sup>13</sup> The Department provides the following analysis comparing IPL’s past reliability performance and past goals to assess whether IPL’s proposed 2013 goals are reasonable.

As requested by Commissioner Wergin during the Agenda meeting, below is a table showing what additional goals the Company would have met had the Commission consistently used five-year averages to set IPL’s annual goals rather than keep them flat since 2009. These additional goals are highlighted in green.

**Table 6:**

	Winnebago			Albert Lea		
	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
2003	Yes	No	Yes	Yes	Yes	Yes
2004	Yes	Yes	No	No	No	No
2005	No	No	No	No	No	No
2006	Yes	Yes	Yes	No	Yes	No
2007	No	No	No	Yes	No	Yes
2008	Yes	Yes	No	No	No	No
2009	Yes	Yes	No	Yes	No	Yes
2010	No	No	No	No	No	Yes
2011	No	Yes	No	Yes	Yes	No
2012	No	No	No	Yes	Yes	Yes

<sup>13</sup> Please see the Department’s initial comments and the Commission’s Orders in Docket Nos. E001/M-09-344, E001/M-10-291, E001/M-11-277, and E001/M-12-320.



Had IPL’s goals been set at rolling five-year averages since 2009, the Company would have met three additional goals over what was reported in Section II.B.3 above. Taking these three hypothetically-met goals into account, IPL’s overall success rate in meeting goals since 2003 would have increased to 43%.<sup>14</sup> This would make it appear that the Company’s Albert Lea work center reliability has improved in recent history. However, as can be seen in the charts below, IPL’s SAIDI and SAIFI performance in the Albert Lea work center has declined slightly and CAIDI performance has remained relatively stable. The Department also notes that freezing IPL’s goals has not always resulted in goals that were harder to achieve than had they been set at the five-year average (see Graphs 1, 2 and 6 below).

2. *Winnebago Work Center*

Table 7 compares 2012 goals established by the Commission for the Winnebago Work Center with the five-year performance average (2008 – 2012) and IPL’s proposed goals. The Department notes that IPL’s proposed goals do not reflect the mathematical relationship between SAIDI, SAIFI, and CAIDI.

**Table 7: Winnebago Work Center Proposed Goal Comparison**

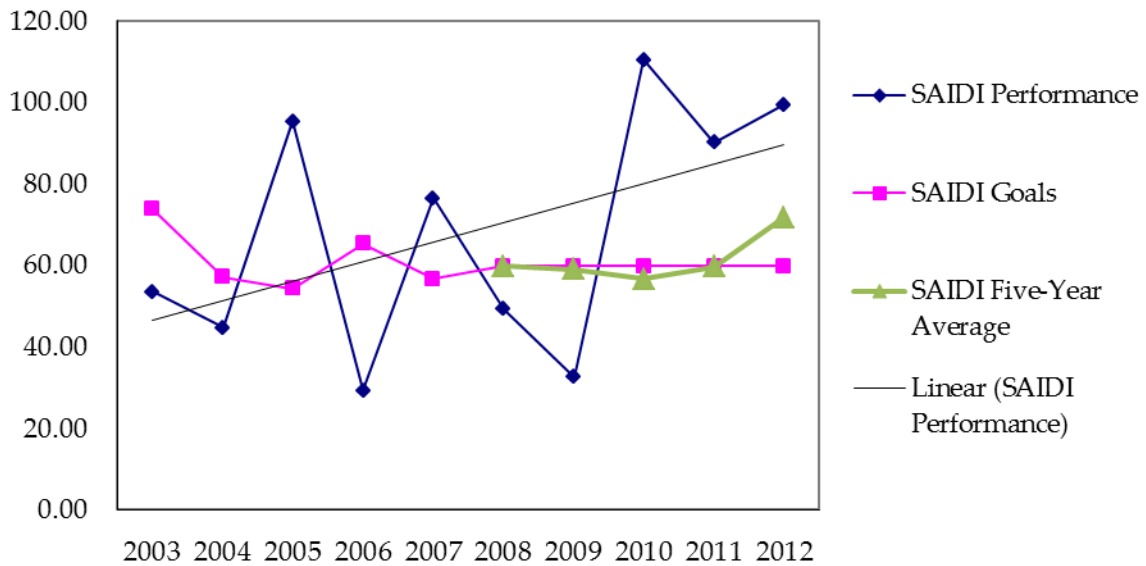
	<b>SAIDI</b>	<b>SAIFI</b>	<b>CAIDI</b>
2012 Goal	59.81	0.90	66.17
5-Year Ave.	76.34	0.75	102.34
IPL Proposed	76.30	0.71	99.30

IPL stated that its proposed SAIDI goal reflects the mean of the previous five years’ performance, while its proposed SAIFI and CAIDI goals reflect the mean of the previous five years’ performance with the highest and lowest figures excluded (to exclude large swings). The Department notes that IPL’s proposal represents a different relationship among the goals than has been approved in the past. More specifically, IPL proposed to impose a stricter SAIFI goal and relatively less strict SAIDI and CAIDI goals over its 2012 goals. To assess whether it may be appropriate to set more stringent SAIDI and CAIDI goals while allowing the SAIFI goal to be more easily achieved, the Department examined IPL’s historical reliability goals and performance. The following graphs represent reliability performance compared to goals in the Winnebago work center. Note that performance numbers that are less than the goals represent performance that exceeds goals.<sup>15</sup>

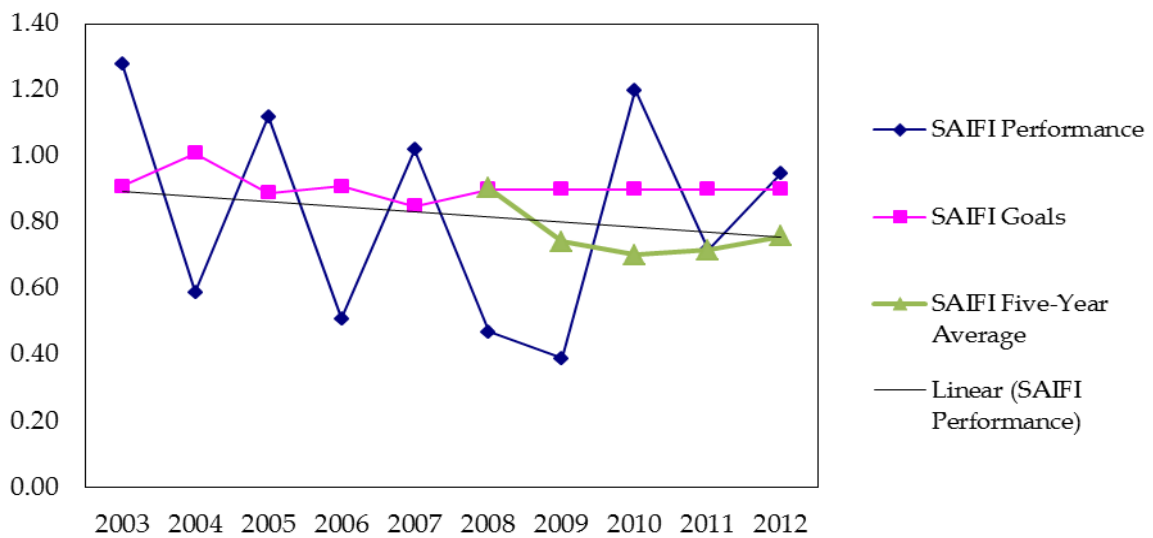
<sup>14</sup> Table 3 shows IPL has met 23 of its goals since 2003 (or 38 percent). Table 4 shows that IPL would have met three additional goals had they been set at rolling three-year averages since 2009. Twenty-six goals met since 2003 divided by 60 total goals since 2003 = 43.33 percent.

<sup>15</sup> The Department has added additional elements to its graphs this year to better assist the Commission in its evaluation. The “Linear” line is the overall linear trend in IPL’s performance results since 2003. Note that an increasing line indicates overall declining performance. The green line (triangle data points) shows where IPL’s goals would have been set if the Commission had continued to utilize the rolling, five-year performance average since 2008. Note that the Goals lines coincide with the Five-Year Average lines through 2008, after which the goals were frozen.

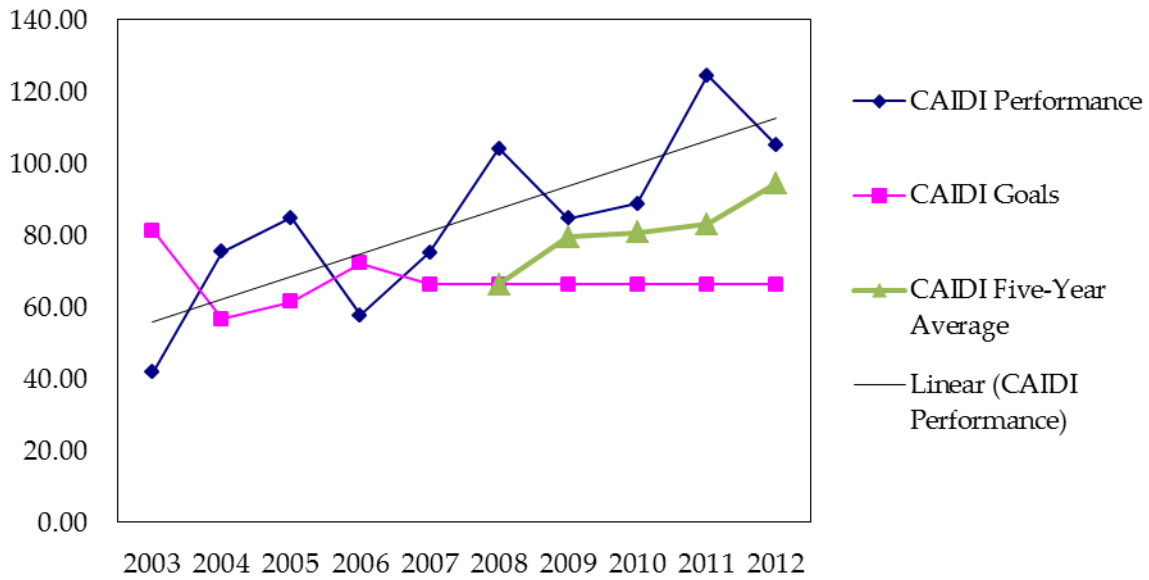
**Graph 1: SAIDI Performance vs. Goals  
 Winnebago Work Center**



**Graph 2: SAIFI Performance vs. Goals  
 Winnebago Work Center**



**Graph 3: CAIDI Performance vs. Goals  
 Winnebago Work Center**



The Department notes that Graphs 1 through 3, along with Table 3 above, illustrate the high performance variability that has occurred in this relatively small work center. While IPL has achieved its goals five out of the last ten years on SAIDI and SAIFI, as can be seen in Graph 3, the CAIDI goal was only met twice in the past ten years.

Considering the declining trend in SAIDI performance and the difficulty IPL appears to be having in meeting its CAIDI goals, it appears to the Department that goals that continue to exert a downward pressure on SAIDI and CAIDI would be more desirable for 2013 than a stricter SAIFI goal. Therefore, the Department recommends that the Commission set IPL's 2013 goals in the Winnebago work center at the same level as those set for 2008 through 2012.

### 3. *Albert Lea Work Center*

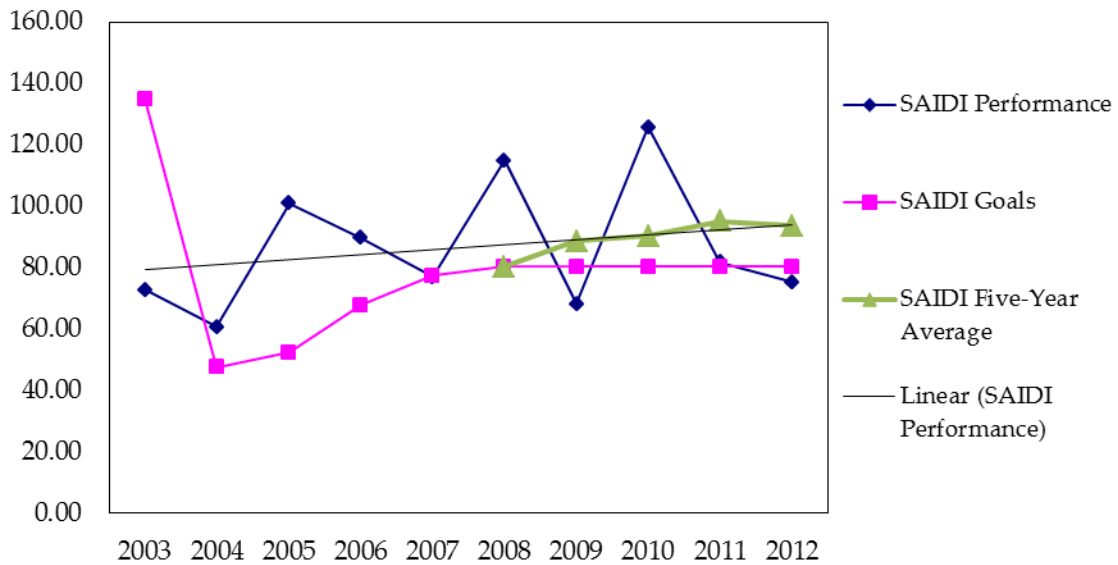
Table 8 compares the 2012 goals that were established by the Commission for the Albert Lea work center with goals based on five-year (2008 – 2012) averages and IPL's proposed goals. Again, IPL's proposed goals do not reflect the mathematical relationship between SAIDI, SAIFI, and CAIDI.

**Table 8: Albert Lea Work Center Proposed Goal Comparison**

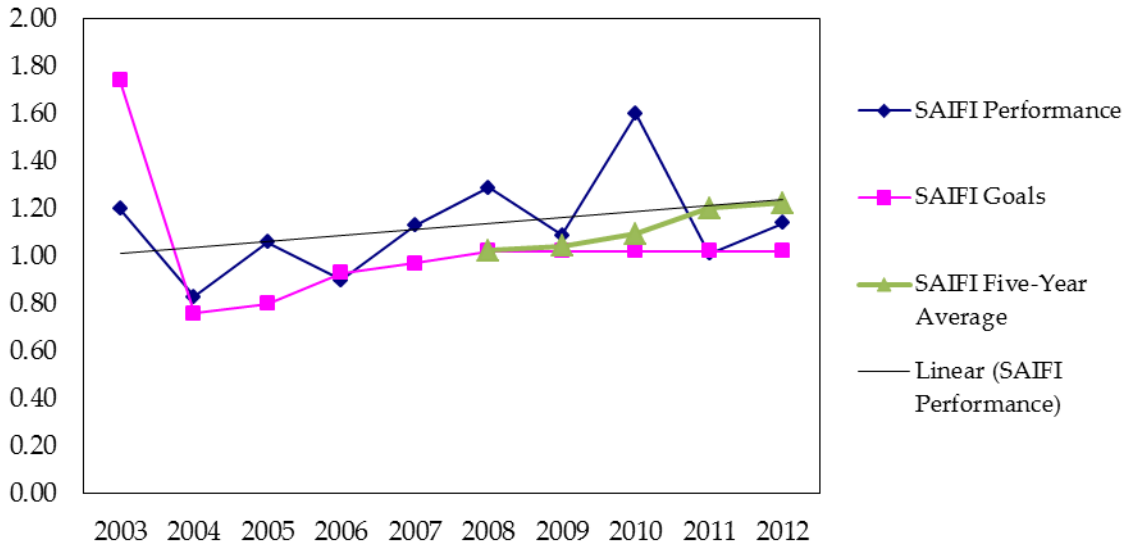
	<b>SAIDI</b>	<b>SAIFI</b>	<b>CAIDI</b>
2012 Goal	80.30	1.02	78.44
5-Year Ave.	93.25	1.23	76.06
IPL Proposed	81.80	1.14	75.20

The following graphs depict the past goals and actual performance for the Albert Lea work center.

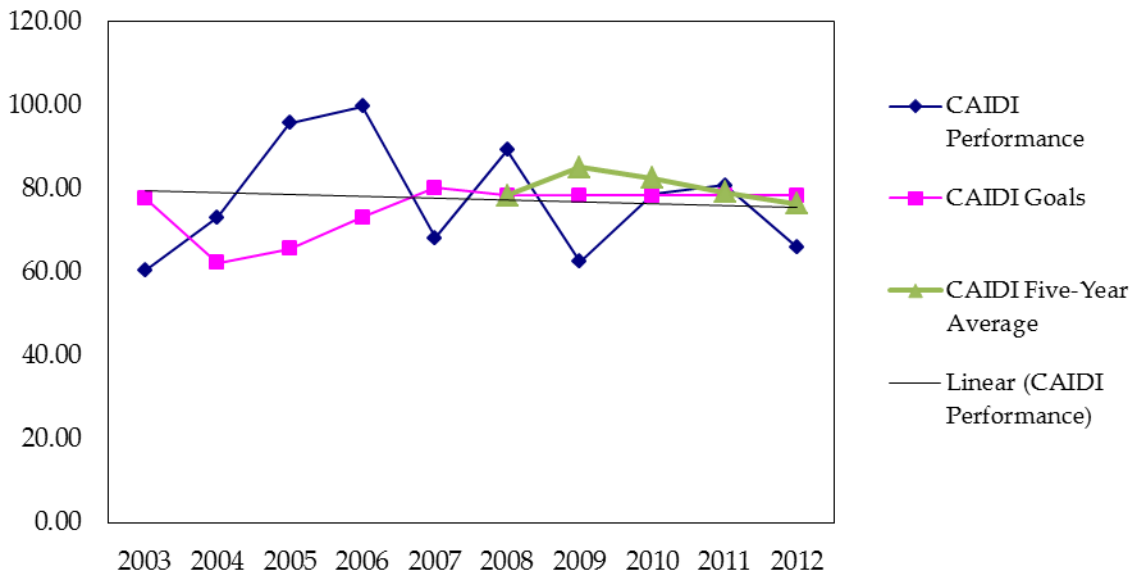
**Graph 4: SAIDI Performance vs. Goals  
 Albert Lea Work Center**



**Graph 5: SAIFI Performance vs. Goals  
 Albert Lea Work Center**



**Graph 6: CAIDI Performance vs. Goals  
 Albert Lea Work Center**



Despite improvements over 2011 in both SAIDI and CAIDI, IPL has only achieved its SAIFI goal three times and SAIDI and CAIDI goals four times each over the last ten years.<sup>16</sup> In addition, there appears to be a slight declining trend in both SAIDI and SAIFI performances since 2003. The 2012 goals shown in Table 8, if maintained for 2013, would place slightly more downward pressure on SAIDI and SAIFI while maintaining a CAIDI goal closer to the 5-year average. The Commission approved these same goals for 2008 through 2012. Therefore, the Department recommends that the goals for the Albert Lea work center be maintained at the same level for 2013 as were approved by the Commission for 2008 through 2012.

*D. ANNUAL SERVICE QUALITY REPORT*

Minnesota Rules, part 7826.1300 requires each utility to file the following information:

1. Meter Reading Performance (7826.1400),
2. Involuntary disconnection (7826.1500),
3. Service Extension Response Time (7826.1600),
4. Call Center Response Time (7826.1700),
5. Emergency Medical Accounts (7826.1800),
6. Customer Deposits (7826.1900), and
7. Customer Complaints (7826.2000).

*1. Meter Reading Performance*

The following information is required for reporting on monthly meter reading performance:

- A. the number and percentage of customer meters read by utility personnel;
- B. the number and percentage of customer meters self-read by customers;
- C. the number and percentage of customer meters that have not been read by utility personnel for periods of 6 to 12 months and for periods of longer than 12 months, and an explanation as to why they have not been read; and
- D. data on monthly meter reading staffing levels by work center or geographical area.

IPL reported that, on average, 92.7 percent of its meters in Minnesota were read monthly in 2012; virtually all of which were read by the Company. An average of 10 meters had not been read for 6 to 12 months. During 2012, all meters had been read within the last 12 months. IPL also stated that when a meter has not been read for four months or more, additional contact is made with the customer to arrange an appointment to read the meter. The following table shows IPL's monthly meter reading staffing levels for the past five years:

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<sup>16</sup> See Table 3 discussed above.

**Table 9: Meter Reading Staffing Levels**

	<b>Staffing Level</b>
2008	10
2009	11
2010	11
2011	11
2012	11

Minnesota Rules, part 7826.0900, subp. 1 requires that at least 90 percent of all meters during the months of April through November and at least 80 percent of all meters during the months of December through March be read monthly. According to IPL's monthly meter reading statistics, the Company met this standard in every month in 2012 except December, during which 75.72 percent of meters were read. IPL stated that it missed the 80 percent requirement due to winter weather conditions (heavy snow on December 8 and 9, blizzard conditions on December 19 and 20, and 11 days of below zero temperatures), an employee on extended maternity leave, and higher than expected number of sick and vacation days taken by meter reading staff.

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.1400.

2. *Involuntary Disconnections*

The following information is required for reporting on involuntary disconnection of service by calendar month:

- A. the number of customers who received disconnection notices,
- B. the number of customers who sought cold weather rule protection under Chapter 7820 and the number who were granted cold weather rule protection,
- C. the total number of customers whose service was disconnected involuntarily and the number of these customers restored to service within 24 hours, and
- D. the number of disconnected customers restored to service by entering into a payment plan.

The following table summarizes customer disconnection statistics reported by IPL in its annual reports.

**Table 10: Customer Involuntary Disconnection Information**

	Customers Receiving Disconnect Notice	Customers Seeking CWR Protection *	Customers Granted CWR Protection *	% Granted	Customers Disconnected Involuntarily	Customers Restored within 24 Hours	Customers Restored by Entering Payment Plan
2003	27,825	152	113	74%	869	55	5
2004	28,682	148	135	71%	885	19	42
2005	32,983	179	172	96%	821	54	5
2006	34,153	642	585	91%	944	16	1
2007	32,215	1,031	1,031	100%	959	18	0
2008	32,757	891	891	100%	630	43	9
2009	36,377	1,555	1,555	100%	604	122	11
2010	37,997	1,976	1,976	100%	509	96	11
2011	42,347	3,772	3,772	100%	490	63	19
2012	39,200	5,328	5,328	100%	511	91	0

\*Residential customers only.

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.1500.

### 3. *Service Extension Requests*

The following information is required for reporting on service extension request response times by calendar month:

- A. the number of customers requesting service to a location not previously served by the utility and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service; and
- B. the number of customers requesting service to a location previously served by the utility, but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.

For 2012, IPL reported that 6,886 customers requested service to a location previously served and 264 customers requested service to a location not previously served. According to the data provided by IPL, the average interval between request/readiness date and installation date for locations not previously served was five days. This represents an improvement over the 2011 average interval of six days.



The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.1600.

#### 4. *Call Center Response Time*

The annual service quality report must include a detailed report on monthly call center response times, including calls to the business office and calls regarding service interruptions. Further, Minnesota Rules, part 7826.1200 requires that 80 percent of calls be answered within 20 seconds.

IPL reported that 63,939 calls were received in 2012 from Minnesota customers. An average of 88.4 percent of these calls were answered within 20 seconds. IPL also reports that 7,372 of these calls were calls regarding outages. An average of 91.73 percent of these outage calls were answered within 20 seconds.

The following table summarizes IPL's reported call center volume.

**Table 11: IPL Call Center Volume**

	<b>Outage Calls</b>	<b>Outage Calls Answered within 20 Seconds</b>	<b>Total Calls</b>	<b>Total Calls Answered within 20 Seconds</b>	<b>Outage Calls as a percent of Total Calls</b>
2004	5,132	84%	75,562	81%	6.79%
2005	5,607	89%	69,894	84%	8.02%
2006	6,328	93%	64,850	73%	9.76%
2007	6,353	93%	67,225	71%	9.45%
2008	6,046	95%	69,650	75%	8.68%
2009	5,271	98%	65,585	84%	8.04%
2010	7,058	99%	67,168	87%	10.51%
2011	6,186	95%	67,399	85%	9.18%
2012	7,372	92%	63,939	88%	11.53%

The Department notes that IPL's call center response time to outage calls slipped a bit compared to prior years but is still above the level required by Minnesota Rules. Also of note is the general increase in outage calls as a percentage of total calls; outage calls comprised 6.8 percent of total calls in 2004 and 11.5 percent in 2012. This appears to be consistent with IPL's reliability performance trends.

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.1700 and the standard contained in Minnesota Rules, part 7826.1200.

5. *Emergency Medical Accounts*

The reporting on emergency medical accounts must include the number of customers who requested emergency medical account status under Minnesota Statutes, section 216B.098, subd. 5, the number of applications granted, the number of applications denied, and the reasons for each denial.

IPL reported that six customers requested and were granted Emergency Medical Account Status in 2012.

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.1800.

6. *Customer Deposits*

The reporting on customer deposits must include the number of customers who were required to make a deposit as a condition of receiving service.

The following table summarizes IPL's deposit requirements in recent years.

**Table 12: Customer Deposits Required**

	<b>Number of Customer Deposits Required</b>
2004	263
2005	594
2006	402
2007	481
2008	302
2009	336
2010	454
2011	405
2012	434

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.1900.

7. *Customer Complaints*

The reporting on customer complaints must include the following information by customer class and calendar month:

- A. the number of complaints received;
- B. the number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service extension intervals, service restoration intervals, and any other identifiable subject matter involved in five percent or more of customer complaints;
- C. the number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than ten days;
- D. the number and percentage of all complaints resolved by taking any of the following actions: (1) taking the action the customer requested, (2) taking an action the customer and the utility agree is an acceptable compromise, (3) providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility, or (4) refusing to take the action the customer requested; and
- E. the number of complaints forwarded to the utility by the Commission's Consumer Affairs Office for further investigation and action.

IPL reported monthly information showing that a total of 287 residential, 40 commercial, 19 rural, and 3 industrial customer complaints were received in 2012. The two most frequent categories of complaint were "Property Damage" and "payment status." IPL's information reflects that 23 percent of all complaints were resolved upon initial inquiry and that seven percent took longer than 10 days to resolve. The Company also reported that 56 percent of all complaints were resolved by taking the action the customer requested. IPL reported that three complaints were forwarded to the Company by the Commission's consumer Affairs Office in 2012.

The Department acknowledges IPL's fulfillment of the requirements of Minnesota Rules, part 7826.2000.

*E. COMPLIANCE WITH DECEMBER 20, 2012 ORDER*

- 1. Include in its next filing a description of the policies, procedures and actions that it has implemented, and plans to implement, to assure reliability, including information demonstrating pro-active management of the system as a whole, increased reliability, and active contingency planning.*

The executive summary of IPL's 2013 Annual Report described several processes, plans and programs used to analyze and address outages. IPL provided a list of tasks completed by its Zone Reliability Teams (ZRTs) as well as a list of completed reliability improvement projects, which mainly consisted of partial or complete line rebuilds.<sup>17</sup> In 2013, IPL stated that the ZRTs will

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<sup>17</sup> 2013 Annual Report, pages 19-20 and 21-22, respectively.

continue to meet and discuss the worst performing circuits identified for 2012 and monitor system performance. Discussion will surround root cause analysis and best course of action solution screening. Work is currently underway to complete the large capital projects that were identified and scoped last year including Life-Extension work.<sup>18</sup>

IPL also stated that in 2013, it will participate in an Electric Power Research Institute (EPRI) initiative to research new and better ways in which to make the distribution electric grid be more resilient. This program is an industry-wide effort focused on hardening the system and developing ways to restore the power more quickly after major outage events.<sup>19</sup>

The Department appreciates this information and the effort put forth by IPL to improve its system.

2. *Include in its next filing a status update on the recloser and fuse coordination at affected substations to ensure proper fuse sizes have been installed to coordinate with substation protection equipment operation.*

IPL reported that in 2012 its distribution engineers performed coordination analysis on the substations and feeders shown in the provided table.<sup>20</sup> The Company stated that coordination checks and adjustments are part of good, sound engineering practice and are performed on a continual basis across the system as transmission, load, or system configuration changes warrant. IPL also stated that as an integral part of each feeder life extension project, the tap fuse sizing is reviewed and adjusted as needed.

3. *Include in its next filing a report on the five-year construction plan based on the most recent reliability indices and circuit performance information. This report should evaluate where construction dollars will have the greatest impact on reliability and include the cost and benefit to customers.*

IPL provided this plan on pages 37 through 48 of its 2013 Annual Report. IPL detailed over \$11 million in projects for the Albert Lea work center and over \$6 million in projects for the Winnebago work center. IPL stated,

IPL's current five-year construction project plan is shown in the table below. It is a "living document" and as such is subject to change on a constant basis as system conditions warrant. The life extension process is an integral part of the plan. As other reliability issues are known, root cause solutions are identified by the ZRTs and the plan is updated to include projects based on these root cause solutions. In many cases these solutions are less than

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<sup>18</sup> 2013 Annual Report, page 24.

<sup>19</sup> 2013 Annual Report, page 7.

<sup>20</sup> 2013 Annual Report, pages 35 and 36.

\$25,000 and do not become part of the project plan, but are instead completed using IPL blanket project processes. The projects that are greater than \$25,000 are included in the plan and are ranked based on Benefit Cost Ratio (BCR) score and the recommendations of the ZRT. As discussed in previous filings, the BCR score is determined by evaluating customer benefit, reliability indices and overall line performance. The plan is flexible and as conditions warrant, the ZRT has the ability to move a lower BCR scored project up in the plan to address changes in the line reliability and customer concerns.

The Department notes that a few of the projects listed have a Benefit Cost Ratio (BCR), but most projects have a score of zero or no score at all. Further, some project costs listed are less than the \$25,000 threshold noted by IPL as the minimum cost for a project to be included in the five-year construction plan, and one project, the “Albert Lea – Fairway spacer cable” project, does not list a dollar amount at all. The Department requests that, in Reply Comments, IPL reconcile the Company’s representation of its five-year plan with IPL’s narrative explanation of what is included in the plan, including an explanation as to why the BCR is not provided for each project, why projects of less than \$25,000 are included, and why there is not an estimated project cost listed for the “Albert Lea-Fairway spacer cable” project.

4. *Include in its next filing a report on the Company’s review of the Life Extension guidelines with field engineering and construction crews. The review should ensure wildlife protection is installed on all projects and lightning protection is installed as designed by the engineer.*

On page 48 of its 2013 Annual Report, IPL stated,

All IPL Field Engineers completed training program ENG0205 Life Extension in 2012. This training covered all aspects of IPL’s current Standard Operating Practice on life extension projects. Life extension guidelines are covered with construction crews during the pre-construction meeting held for each project. Crews are reminded at that time to install wildlife protection on every transformer and lightning protection as the Field Engineer has designed.

5. *Include in its next filing a summary table that allows the reader to more easily assess the overall reliability of the system and to identify the main factors that affect reliability.*

IPL’s 2013 Annual Report contains an executive summary that includes narrative as well as graphs and tables that incorporate general and specific information regarding the reliability of IPL’s system.

6. *Include in its next filing a report on the major causes of outages for major event days.*

IPL included this information in its discussion on how the Company normalizes its data to calculate SAIDI, SAIFI and CAIDI. In 2012, no events in the Winnebago operating zone qualified for exclusion, but two events in the Albert Lea operating zone qualified for exclusion. IPL stated that on March 29<sup>th</sup>, a squirrel caused the substation recloser and transformer to fail at the Plainview substation, and on September 5, a severe thunderstorm swept through the entire zone causing system-wide damage.<sup>21</sup>

#### *F. SMART GRID REPORT*

IPL has not implemented any Smart Grid projects in Minnesota, nor does the Company have any near-term Smart Grid initiatives planned. IPL stated that, by deferring investment in advanced metering infrastructure (AMI) and Smart Grid, the Company hopes that it can develop a lower-risk business case for future deployments based on lessons learned from initiatives undertaken by other utilities such as IPL's sister utility Wisconsin Power and Light Company (WPL).

IPL provided a lengthy discussion of Smart Grid projects in both Wisconsin and Iowa, but has yet to pilot or implement anything in Minnesota. The Company stated that potential AMI deployment for IPL has been put on indefinite hold. IPL stated that delaying AMI and Smart Grid investments at IPL will allow it to focus on replacement of its legacy Customer Information Systems (CIS) as part of the recently announced multi-year project to replace both the IPL and WPL CIS systems with one combined Oracle Customer Care and Billing system (CC&B). Full deployment of the CC&B system is a major prerequisite for IPL to be able to fully support goals of future Smart Grid investments and deployments, especially related to AMI smart metering.

### **III. RECOMMENDATIONS**

The Department recommends that the Commission accept IPL's filing in fulfillment of the requirements of Minnesota Rules, Chapter 7826 and the Commission's December 20, 2012 Order, pending the submission of additional information.

The Department requests that, in Reply Comments, IPL reconcile the Company's representation of its five-year construction plan with IPL's narrative explanation of what is included in the plan, including an explanation as to why the Benefit Cost Ratio is not provided for each project, why projects of less than \$25,000 are included, and why there is not an estimated project cost listed for the "Albert Lea-Fairway spacer cable" project.

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<sup>21</sup> 2013 Annual Report, page 27.

The Department also requests that IPL provide in reply comments and in future annual reports:

- The reports required under Minnesota Rules, part 7826.0500, subp. 1G; and
- The SAIDI, SAIFI, and CAIDI performances for its worst performing circuits, as required in Minnesota Rules, part 7826.0500, subp. 1H.

The Department also recommends that the Commission set the reliability goals at the same level for 2013 as were approved by the Commission for 2008 through 2012 as follows:

<b>Work Center</b>	<b>SAIDI</b>	<b>SAIFI</b>	<b>CAIDI</b>
Winnebago	59.81	0.90	66.17
Albert Lea	80.30	1.02	78.44

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7826.0100 APPLICABILITY.  
7826.0200 DEFINITIONS.

**SAFETY**

7826.0300 SAFETY STANDARDS.  
7826.0400 ANNUAL SAFETY REPORT.

**RELIABILITY**

7826.0500 RELIABILITY REPORTING REQUIREMENTS.  
7826.0600 RELIABILITY STANDARDS.  
7826.0700 REPORTING MAJOR SERVICE INTERRUPTIONS.

**SERVICE**

7826.0800 CUSTOMER NOTICE OF PLANNED SERVICE INTERRUPTIONS.  
7826.0900 METER READING FREQUENCY; CUSTOMER ACCOMMODATION.  
7826.1000 REPLACING MALFUNCTIONING METERS.  
7826.1100 KEEPING SERVICE CALLS.  
7826.1200 CALL CENTER RESPONSE TIME.  
7826.1300 ANNUAL SERVICE QUALITY REPORT FILING.

**REPORTING**

7826.1400 REPORTING METER-READING PERFORMANCE.  
7826.1500 REPORTING INVOLUNTARY DISCONNECTIONS.  
7826.1600 REPORTING SERVICE EXTENSION REQUEST RESPONSE TIMES.  
7826.1700 REPORTING CALL CENTER RESPONSE TIMES.  
7826.1800 REPORTING EMERGENCY MEDICAL ACCOUNT STATUS.  
7826.1900 REPORTING CUSTOMER DEPOSITS.  
7826.2000 REPORTING CUSTOMER COMPLAINTS.

**CHAPTER 7826**

**PUBLIC UTILITIES COMMISSION**

**ELECTRIC UTILITY STANDARDS**

**7826.0100 APPLICABILITY.**

This chapter applies to all persons, corporations, or other legal entities engaged in the retail distribution of electric service to the public, with the following exceptions:

- A. cooperative electric associations;
- B. municipal utilities;
- C. persons distributing electricity only to tenants or cooperative or condominium owners in buildings owned, leased, or operated by those persons;
- D. persons distributing electricity only to occupants of a manufactured home or trailer park owned, leased, or operated by those persons; and
- E. persons distributing electricity to fewer than 25 persons.

**Statutory Authority:** *MS s 216B.81*



**History:** 27 SR 1174

**Posted:** February 13, 2003

#### 7826.0200 DEFINITIONS.

Subpart 1. **Scope.** The terms used in this chapter have the meanings given them in this part.

Subp. 2. **Bulk power supply facility.** "Bulk power supply facility" means the interconnected system that encompasses the electric generation resource, transmission lines, transmission substations, and associated equipment that, upon a total, simultaneous, and sustained interruption, disrupts service to all distribution feeders exiting that substation when those distribution feeders do not have service restoration interconnections with alternate sources.

Subp. 3. **Cold weather rule.** "Cold weather rule" means the set of protections against disconnection during the heating season set forth in Minnesota Statutes, sections 216B.096 and 216B.097.

Subp. 4. **Customer average interruption duration index or CAIDI.** "Customer average interruption duration index" or "CAIDI" means the average customer-minutes of interruption per customer interruption. It approximates the average length of time required to complete service restoration. It is determined by dividing the annual sum of all customer-minutes of interruption durations by the annual number of customer interruptions, using storm-normalized data.

Subp. 5. **Customer complaint.** "Customer complaint" means any call center communication by a utility customer in which the customer states a grievance related to the utility's provision of service to that customer.

Subp. 6. **Interruption.** "Interruption" means an interruption of service to a customer with a duration greater than five minutes.

Subp. 7. **Major service interruption.** "Major service interruption" means an interruption of service at the feeder level or above and affecting 500 or more customers for one or more hours.

Subp. 8. **Resolved.** "Resolved," used in regard to customer complaints, means that the utility has examined the complainant's claims, conducted any necessary investigation, and done one of the following:

- A. taken the action the customer requests;
- B. taken an action the customer and the utility agree is an acceptable compromise;
- C. provided the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility; or
- D. refused to take the action the customer requested and communicated that refusal to the customer.

Subp. 9. **Storm-normalized data.** "Storm-normalized data" means data that has been adjusted to neutralize the effects of outages due to major storms.

Subp. 10. **System average interruption duration index or SAIDI.** "System average interruption duration index" or "SAIDI" means the average customer-minutes of interruption per customer. It is determined by dividing the annual sum of customer-minutes of interruption by the average number of customers served during the year, using storm-normalized data.

Subp. 11. **System average interruption frequency index or SAIFI.** "System average interruption frequency index" or "SAIFI" means the average number of interruptions per customer per year. It is determined by dividing the total annual number of customer interruptions by the average number of customers served during the year, using storm-normalized data.

Subp. 12. **Utility.** "Utility" means any person, corporation, or other legal entity engaged in the retail distribution of electric service to the public, with the following exceptions:

- A. cooperative electric associations;
- B. municipal utilities;
- C. persons distributing electricity only to tenants or cooperative or condominium owners in buildings owned, leased, or operated by those persons;
- D. persons distributing electricity only to occupants of a manufactured home or trailer park owned, leased, or operated by those persons; and
- E. persons distributing electricity to fewer than 25 persons.

Subp. 13. **Work center.** "Work center" means a portion of a utility's assigned service area that it treats as an administrative subdivision for purposes of maintaining and repairing its distribution system.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174; L 2009 c 110 s 37*

**Posted:** *June 2, 2009*

## SAFETY

### 7826.0300 SAFETY STANDARDS.

Subpart 1. **National Electrical Safety Code.** When constructing new facilities or reinvesting capital in existing facilities, utilities shall comply with the requirements stated at the time the work is done in the then most recently published edition of the National Electrical Safety Code, as published by the Institute of Electrical and Electronics Engineers, Inc. and approved by the American National Standards Institute. This code is incorporated by reference, is not subject to frequent change, and is conveniently available to the public through the statewide interlibrary loan system.

Subp. 2. **Standards and recommended practices of the Institute of Electrical and Electronics Engineers, Inc. and the American National Standards Institute.** Utilities are encouraged to follow the recommended practices of the Institute of Electrical and Electronics Engineers, Inc. and the American National Standards Institute on electricity metering and standard voltage ratings for electric power systems and equipment. Utility compliance with these recommended practices creates a rebuttable presumption that a practice is reasonable.

Subp. 3. **Occupational Safety and Health Administration rules.** When constructing, installing, refurbishing, or maintaining facilities, utilities shall comply with all regulations promulgated by the United States Occupational Safety and Health Administration and by the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry.

**Statutory Authority:** *MS s 216B.81*

**History:** 27 SR 1174

**Posted:** February 13, 2003

**7826.0400 ANNUAL SAFETY REPORT.**

On or before April 1 of each year, each utility shall file a report on its safety performance during the last calendar year. This report shall include at least the following information:

A. summaries of all reports filed with the United States Occupational Safety and Health Administration and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry during the calendar year; and

B. a description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and all remedial action taken as a result of any injuries or property damage described.

**Statutory Authority:** *MS s 216B.81*

**History:** 27 SR 1174

**Posted:** February 13, 2003

**RELIABILITY**

**7826.0500 RELIABILITY REPORTING REQUIREMENTS.**

Subpart 1. **Annual reporting requirements.** On or before April 1 of each year, each utility shall file a report on its reliability performance during the last calendar year. This report shall include at least the following information:

A. the utility's SAIDI for the calendar year, by work center and for its assigned service area as a whole;

B. the utility's SAIFI for the calendar year, by work center and for its assigned service area as a whole;

C. the utility's CAIDI for the calendar year, by work center and for its assigned service area as a whole;

D. an explanation of how the utility normalizes its reliability data to account for major storms;

E. an action plan for remedying any failure to comply with the reliability standards set forth in part 7826.0600 or an explanation as to why noncompliance was unavoidable under the circumstances;

F. to the extent feasible, a report on each interruption of a bulk power supply facility during the calendar year, including the reasons for interruption, duration of interruption, and any remedial steps that have been taken or will be taken to prevent future interruption;

G. a copy of each report filed under part 7826.0700;

H. to the extent technically feasible, circuit interruption data, including identifying the worst performing circuit in each work center, stating the criteria the utility used to identify the worst performing circuit, stating the circuit's SAIDI, SAIFI, and CAIDI, explaining the reasons that the circuit's performance is in last place, and describing any operational changes the utility has made, is considering, or intends to make to improve its performance;

I. data on all known instances in which nominal electric service voltages on the utility's side of the meter did not meet the standards of the American National Standards Institute for nominal system voltages greater or less than voltage range B;

J. data on staffing levels at each work center, including the number of full-time equivalent positions held by field employees responsible for responding to trouble and for the operation and maintenance of distribution lines; and

K. any other information the utility considers relevant in evaluating its reliability performance over the calendar year.

Subp. 2. **Initial reporting requirements.** By March 30, 2003, each utility shall file its SAIDI, SAIFI, and CAIDI for each of the past five calendar years, by work center and for its assigned service area as a whole. If this information is not available, the utility shall file an explanation of how it has been tracking reliability for the past five years, together with reliability data for that period of time. If the utility has implemented a new reliability tracking system that makes comparisons between historical data and current data unreliable, the utility shall explain this situation in its filing.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

#### **7826.0600 RELIABILITY STANDARDS.**

Subpart 1. **Annually proposed individual reliability standards.** On or before April 1 of each year, each utility shall file proposed reliability performance standards in the form of proposed numerical values for the SAIDI, SAIFI, and CAIDI for each of its work centers. These filings shall be treated as "miscellaneous tariff filings" under the commission's rules of practice and procedure, part 7829.0100, subpart 11.

Subp. 2. **Annually set, utility-specific, reliability standards.** The commission shall set reliability performance standards annually for each utility in the form of numerical values for the SAIDI, SAIFI, and CAIDI for each of its work centers. These standards remain in effect until the commission takes final action on a filing proposing new standards or changes them in another proceeding.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

#### **7826.0700 REPORTING MAJOR SERVICE INTERRUPTIONS.**

Subpart 1. **Contemporaneous reporting.** A utility shall promptly inform the commission's Consumer Affairs Office of any major service interruption. At that time, the utility shall provide the following information, to the extent known:

- A. the location and cause of the interruption;
- B. the number of customers affected;
- C. the expected duration of the interruption; and
- D. the utility's best estimate of when service will be restored, by geographical area.

Subp. 2. **Written report.** Within 30 days, a utility shall file a written report on any major service interruption in which ten percent or more of its Minnesota customers were out of service for 24 hours or more. This report must include at least a description of:

- A. the steps the utility took to restore service; and
- B. any operational changes the utility has made, is considering, or intends to make, to prevent similar interruptions in the future or to restore service more quickly in the future.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

## SERVICE

### 7826.0800 CUSTOMER NOTICE OF PLANNED SERVICE INTERRUPTIONS.

Utilities shall give customers the most effective actual notice possible of any planned service interruption expected to last longer than 20 minutes. For any planned interruption expected to exceed four hours, the utility shall provide, if feasible, mailed notice one week in advance and notice by telephone or door-to-door household visits 12 to 72 hours before the interruption. Planned service interruptions must be scheduled at times to minimize the inconvenience to customers. When planned service interruptions exceeding four hours are canceled, utilities shall notify, if feasible, the customers who received notice that service would be interrupted.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

### 7826.0900 METER READING FREQUENCY; CUSTOMER ACCOMMODATION.

Subpart 1. **Meter reading performance standard.** Utilities shall attempt to read all meters on a monthly basis unless otherwise authorized by the commission. Utilities are assumed to be in compliance with this standard if they read at least 90 percent of all meters during the months of April through November and at least 80 percent of all meters during the months of December through March. Utilities shall contact any customer whose bill has been estimated for two consecutive months and attempt to schedule a meter reading.

Subp. 2. **Evening and weekend meter reading.** Utilities shall read meters during the evening or on Saturday or Sunday for customers whose meters are inaccessible and whose work or other schedule makes meter reading during regular business hours a hardship. When a utility contacts a customer on an individual basis to schedule a meter reading, the utility shall inform the customer of the available alternatives that the utility provides, such as the customer's option to provide a self-read. If alternative arrangements are not acceptable to the customer, the utility shall inform the customer that the utility provides evening and weekend meter reading for customers whose work schedule or other schedule makes meter reading during regular business hours a hardship.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

#### **7826.1000 REPLACING MALFUNCTIONING METERS.**

Utilities shall replace a malfunctioning meter within ten calendar days of receiving a report from a customer questioning its accuracy or within ten calendar days of learning in some other way that it may be inaccurate.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

#### **7826.1100 KEEPING SERVICE CALLS.**

Utilities shall keep service call appointments and shall provide as much notice as possible when an appointment cannot be kept. A service call appointment is kept if the worker arrives within a four-hour period set by the utility and clearly communicated to the customer.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

#### **7826.1200 CALL CENTER RESPONSE TIME.**

Subpart 1. **Calls to business office.** On an annual basis, utilities shall answer 80 percent of calls made to the business office during regular business hours within 20 seconds. "Answer" means that an operator or representative is ready to render assistance or accept the information to handle the call. Acknowledging that the customer is waiting on the line and will be served in turn is not an answer. If the utility uses an automated call-processing system, the 20-second period begins when the customer has selected a menu option to speak to a live operator or representative. Utilities using automatic call-processing systems must provide that option, and they must not delay connecting the caller to a live operator or representative for purposes of playing promotional announcements.

Subp. 2. **Calls regarding service interruptions.** On an annual basis, utilities shall answer 80 percent of calls directed to the telephone number for reporting service interruptions within 20 seconds. "Answer"

may mean connecting the caller to a recording providing, to the extent practicable, at least the following information:

- A. the number of customers affected by the interruption;
- B. the cause of the interruption;
- C. the location of the interruption; and
- D. the utility's best estimate of when service will be restored, by geographical area.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

#### **7826.1300 ANNUAL SERVICE QUALITY REPORT FILING.**

On or before April 1 of each year, each utility shall file a report on its service quality performance during the last calendar year. These filings must be treated as "miscellaneous tariff filings" under the commission's rules of practice and procedure, part 7829.0100, subpart 11. This report must include at least the information set forth in parts 7826.1400 to 7826.2000.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

### **REPORTING**

#### **7826.1400 REPORTING METER-READING PERFORMANCE.**

The annual service quality report must include a detailed report on the utility's meter-reading performance, including, for each customer class and for each calendar month:

- A. the number and percentage of customer meters read by utility personnel;
- B. the number and percentage of customer meters self-read by customers;
- C. the number and percentage of customer meters that have not been read by utility personnel for periods of six to 12 months and for periods of longer than 12 months, and an explanation as to why they have not been read; and
- D. data on monthly meter-reading staffing levels, by work center or geographical area.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

**7826.1500 REPORTING INVOLUNTARY DISCONNECTIONS.**

The annual service quality report must include a detailed report on involuntary disconnections of service, including, for each customer class and each calendar month:

- A. the number of customers who received disconnection notices;
- B. the number of customers who sought cold weather rule protection under Minnesota Statutes, sections 216B.096 and 216B.097, and the number who were granted cold weather rule protection;
- C. the total number of customers whose service was disconnected involuntarily and the number of these customers restored to service within 24 hours; and
- D. the number of disconnected customers restored to service by entering into a payment plan.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174; L 2009 c 110 s 37*

**Posted:** *June 2, 2009*

**7826.1600 REPORTING SERVICE EXTENSION REQUEST RESPONSE TIMES.**

The annual service quality report must include a report on service extension request response times, including, for each customer class and each calendar month:

- A. the number of customers requesting service to a location not previously served by the utility and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service; and
- B. the number of customers requesting service to a location previously served by the utility, but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

**7826.1700 REPORTING CALL CENTER RESPONSE TIMES.**

The annual service quality report must include a detailed report on call center response times, including calls to the business office and calls regarding service interruptions. The report must include a month-by-month breakdown of this information.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*



**7826.1800 REPORTING EMERGENCY MEDICAL ACCOUNT STATUS.**

The annual service quality report must include the number of customers who requested emergency medical account status under Minnesota Statutes, section 216B.098, subdivision 5, the number whose applications were granted, and the number whose applications were denied and the reasons for each denial.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

**7826.1900 REPORTING CUSTOMER DEPOSITS.**

The annual service quality report must include the number of customers who were required to make a deposit as a condition of receiving service.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

**7826.2000 REPORTING CUSTOMER COMPLAINTS.**

The annual service quality report must include a detailed report on complaints by customer class and calendar month, including at least the following information:

- A. the number of complaints received;
- B. the number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service-extension intervals, service-restoration intervals, and any other identifiable subject matter involved in five percent or more of customer complaints;
- C. the number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than ten days;
- D. the number and percentage of all complaints resolved by taking any of the following actions:
  - (1) taking the action the customer requested;
  - (2) taking an action the customer and the utility agree is an acceptable compromise;
  - (3) providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility; or
  - (4) refusing to take the action the customer requested; and
- E. the number of complaints forwarded to the utility by the commission's Consumer Affairs Office for further investigation and action.

**Statutory Authority:** *MS s 216B.81*

**History:** *27 SR 1174*

**Posted:** *February 13, 2003*

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce  
Comments**

**Docket No. E001/M-13-249**

Dated this 31<sup>st</sup> day of **July, 2013**

**/s/Sharon Ferguson**

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022191	Electronic Service	No	OFF_SL_13-249_M-13-249
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_13-249_M-13-249
City	Attorney	N/A	City of Albert Lea	221 E Clark St  Albert Lea, MN 56007	Paper Service	No	OFF_SL_13-249_M-13-249
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Electronic Service	No	OFF_SL_13-249_M-13-249
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Ian	Dobson	ian.dobson@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, BRM Tower St. Paul, MN 55101	Electronic Service	No	OFF_SL_13-249_M-13-249
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Jim	Krueger	jkrueger@fmcs.coop	Freeborn-Mower Cooperative Services	Box 611  Albert Lea, MN 56007	Electronic Service	No	OFF_SL_13-249_M-13-249
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_13-249_M-13-249
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David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022093	Electronic Service	No	OFF_SL_13-249_M-13-249
Jenny L.	Myers	jmyers@iwla.org	Izaak Walton League of America	1619 Dayton Ave. Suite 202 St. Paul, MN 55104	Paper Service	No	OFF_SL_13-249_M-13-249
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